

Application No.: 10/566,631

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AMENDMENTS TO THE CLAIMS:

*Please amend the claims as follows:*

1. (Original) A luneberg lens comprising:

a lens which is configured by combining lens parts of spherical core and spherical shell-like resin foams, wherein

the lens is sealed by a synthetic resin film which is formed along a surface of the lens and in which a thickness is 100 $\mu$ m or less and of which own relative dielectric constant is higher than a relative dielectric constant of the outermost layer of the lens.

2. (Original) The luneberg lens as set forth in claim 1, wherein

the synthetic resin film is a shrink film.

3. (Currently Amended) An antenna apparatus, comprising:

a luneberg lens, comprising

a hemispherical core having a cross-section,

a plurality of hemispherical luneberg [[lens]] shells arranged concentrically around the hemispherical core,

a reflecting plate which is attached to a two-divided cross-section of a sphere of this lens the cross-section of the hemispherical core,

a primary feed which is placed at a focal point portion of the lens, and

a holding unit of this primary feed, wherein

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the reflecting plate and the luneberg lens are sealed by a synthetic resin film formed along a surface of the luneberg lens, the synthetic resin film having a thickness of 100 $\mu$ m or less and a relative dielectric constant that is higher than a relative dielectric constant of an outermost layer of the plurality of hemispherical luneberg shells ~~hemispherical luneberg lens is configured by the luneberg lens set forth in claim 1.~~

4. (Currently Amended) An antenna apparatus comprising:

~~a luneberg lens of which surface is sealed by a cover made [[by]]~~ of a synthetic resin sealing the surface of the luneberg lens according to claim 1,

a primary feed ~~which is~~ placed at a focal point portion of the lens, and

a holding unit of the primary feed, wherein

~~the hemispherical luneberg lens is configured by the luneberg lens as set forth in claim 1,~~

and

the cover has a thickness of 2mm or less.

5. (New) The antenna apparatus according to claim 3, further comprising: a cover made of a synthetic resin sealing the surface of the luneberg lens,

wherein the cover has a thickness of 2mm or less.